



SWG AKIS

Strategic Working Group on Agricultural Knowledge and Innovation Systems

Athens Meeting

28th of February to 1st of March 2017

CAP post 2020 Communication

"The future of food and farming"

Objective of the presentations:

- ▶ Considering the EC communication on the CAP*
- ▶ And considering the Concept note coming from the reflections from SCAR AKIS Tallinn meeting
- ▶ Which specific obligations would you request in the CAP AKIS plan to ensure results?
- ▶ How will you create your CAP AKIS toolbox, to:

PS: This exercise is a brainstorming aiming to trigger creativity, new ideas, inspiration and cross-fertilisation. The aim is not to have a presentation of what is already in place (AKIS description) in your country but to imagine some future characteristics enabling efficient AKISs. Your presentation does not engage your country and your organisation at the Political level. The SWG AKIS is a think tank.

*https://ec.europa.eu/agriculture/sites/agriculture/files/future-of-cap/future_of_food_and_farming_communication_en.pdf

▶ Which specific obligations would you request in the CAP AKIS plan to ensure results?

GENERAL REMARKS AT EU LEVEL

- ▶ CAP AKIS plan should be specifically considered on CAP Regulations, and particularly on the Rural Development Funding Regulation, within the scope of the EIP-Agri.
- ▶ CAP AKIS plan should be clearly defined, so that all Member States and regions have a similar approach, though considering their own territorial features.
- ▶ CAP AKIS plan should be linked to an specific set of measures, being mandatory to take them in order to develop, foster and improve the system.
- ▶ CAP AKIS plan should rely on clear and well defined implementation and managing rules, in order to ensure enough legal security and clarity on the implementation of the measures

▶ Which specific obligations would you request in the CAP AKIS plan to ensure results?

PARTICULAR REMARKS

- ▶ Be clear about the concepts related to the compromise between the bottom – up approach of the EIP-Agri conception and the implementation rules in the Regulation and related COM guidelines for measures and operations.
- ▶ State aid clearance for these type of operations: innovation actions on agriculture, food and forestry taking place in rural areas should be considered within the scope of article 42 regardless of what nature the final product is (if there is any).
- ▶ Clarification of elegible costs and maximum support rates, provide clear guidance for simplified costs on taxed activities (decrease of administrative burdens for both the managers and the beneficiaries)
- ▶ Provide with specif measures/budget to ensure the effectiveness of the networks (CAP networks) in charge of the capitalization of the innovation results.

Enhance knowledge flows within the AKIS and strengthen links between research and practice

In Regionalised countries:

- ▶ Promote interactive Cross-regional working or discussion groups lead by practitioners (end users) with the participation of Advisors and researchers focused on fields of activities, inspired on existing initiatives such as Field labs, Communités of practice or Cross-visits.
- ▶ Take on similar to H2020- Thematic Networks procedures to develop transnational/transregional actions based on knowledge exchange
- ▶ Set up an intervention logic linking training + advisory + demonstration activities + Erasmus + cooperation activities. *(Take the OG's projects results to the advisors capacity and then to the end users; engage Universities and technological centers taking part on OG's on the role of knowledge transfer)*
- ▶ Prepare specific actions as a follow-up to national FGs or WGs that cause cooperation (OGs) proposals.
- ▶ Set them all at different levels (national/regional level) supported by CAP networks (**NRNs should enlarge their scope and budget**).

Enhance knowledge flows within the AKIS and strengthen **links** between research and practice

NEW IDEAS FOR FACING NEW CHALLENGES

-  Mapping agrifood knowledge, regional, national level. Foresight.
-  Better links between R&D&i and primary sector in order to adapt to the changing needs of the society&consumers. New communication channels (bottom-up). **Citizen involvement**
-  More involvement of agricultural producers organisations in R&D by co-funding.
-  Promoting knowledge reservoirs & e-systems for exchanging info, in order to share researchers work. Common structures are needed. Interoperable. **Open science**

Enhance knowledge flows within the AKIS and strengthen links between research and practice

NEW IDEAS FOR FACING NEW CHALLENGES

- 3 Fostering the involvement from SMEs in public R&D projects by taking part in kind with qualified technical personnel.
- 3 Evaluating research career: not only citation index publications, but also **extension** and **dissemination** & transfer activities/training advisors.
- 3 Pluralist research agenda that requires **multi** and **interdisciplinary** approaches. **Social Sciences & Humanities/ICTs. New profiles required.**
Promoting Joint Research-University Centers.
- 3 Education system: more innovative/risky friendly culture. Providing incentives for fostering renovation of universities (post-2020 EU R&I)
- 3 More **sinergies** with **structural funds** (ERDF). Funding proposals high evaluated under R&I programme calls, but no €, due to a lack of resources.

Strengthen farm advisory services within MS' AKISs

- ▶ In regionalised countries like Spain: establish coordination mechanisms for the Advisory services at national level involving FAS and other independent Advisors operating in the regions or at national level.
- ▶ Strong back-office systems:
 - ▶ training for advisors
 - ▶ exchange knowledge platform
 - ▶ research institute participation
 - ▶ Erasmus for farmers with the participation of Advisors and others.
- ▶ Strengthening Advisors capacities to act as innovation agents (oriented training in the scope of measure *knowledge transfer*)
- ▶ Consider the meaning of the role of the Innovation Broker an overlapping with advisors (IB beyond the setting-up of Ogs),
- ▶ Budget and support needed for all this initiatives

Incentivize interactive innovation projects

- ▶ **Enhance the M16 for the development of OG´s (in combination with other measures). Make its implementation easier for everyone, through advanced payments and simplified costs (*innovation simplified costs pack*)**
- ▶ **Specific calls to fund projects to capitalize OG´s projects results. Packs of classified OGs and:**
 - ▶ combined knowledge transfer: training for advisors, demonstration for end users
 - ▶ Workshops and toolboxes
- ▶ **Enhance cross-border collaborations and promote better synergies among different funding instruments**
- ▶ **Allow new funding rules for OG´s innovation projects (e.g.: cascading projects, vouchers, lump sum for farmers and SME´s)**

Support digital transition in agriculture

- ▶ Set a Thematic pack of measures on digitization of the agri-food sector and the rural areas in the current National Rural Development Program, with different actions considered (work in progress):
 - ▶ **M1: TRAINING:**
 - ▶ **Workshops and Seminars** held by agents with capacity on digitization and related to the agrifood and forestry sector
 - ▶ **New training programs:** training courses for technicians in digital data exploitation, authorized observers qualified for data management, granting aid to the providers of these training services.
 - ▶ **Demonstration activities:** development of demonstrations in the field on the functionality of any of the actions in the field of digitalization that it is considered appropriate to communicate to a target group.

Support digital transition in agriculture

▶ M2: ADVISORY:

- ▶ **Farm Advisory (like it is operating the Digital Transformation Offices action inspired on RED.es (Spanish public corporate entity belonging to the Ministry of Energy, Tourism and Digital Agenda with an essential role in the development of the Digital Agenda for Spain))**

Other ideas to mature:

Measure 7: basic services and population renewal in rural areas: creation of innovative talent accelerators (innovation hubs). (Measure 7 is already in the PNDR for natural pathways)

Measure 4: investment in physical assets, for the realization of intangible investments that allow the adoption of management models in the field of digitization and big data, in combination with advice.

Specific calls for OG's on digitization

Support digital transition in agriculture

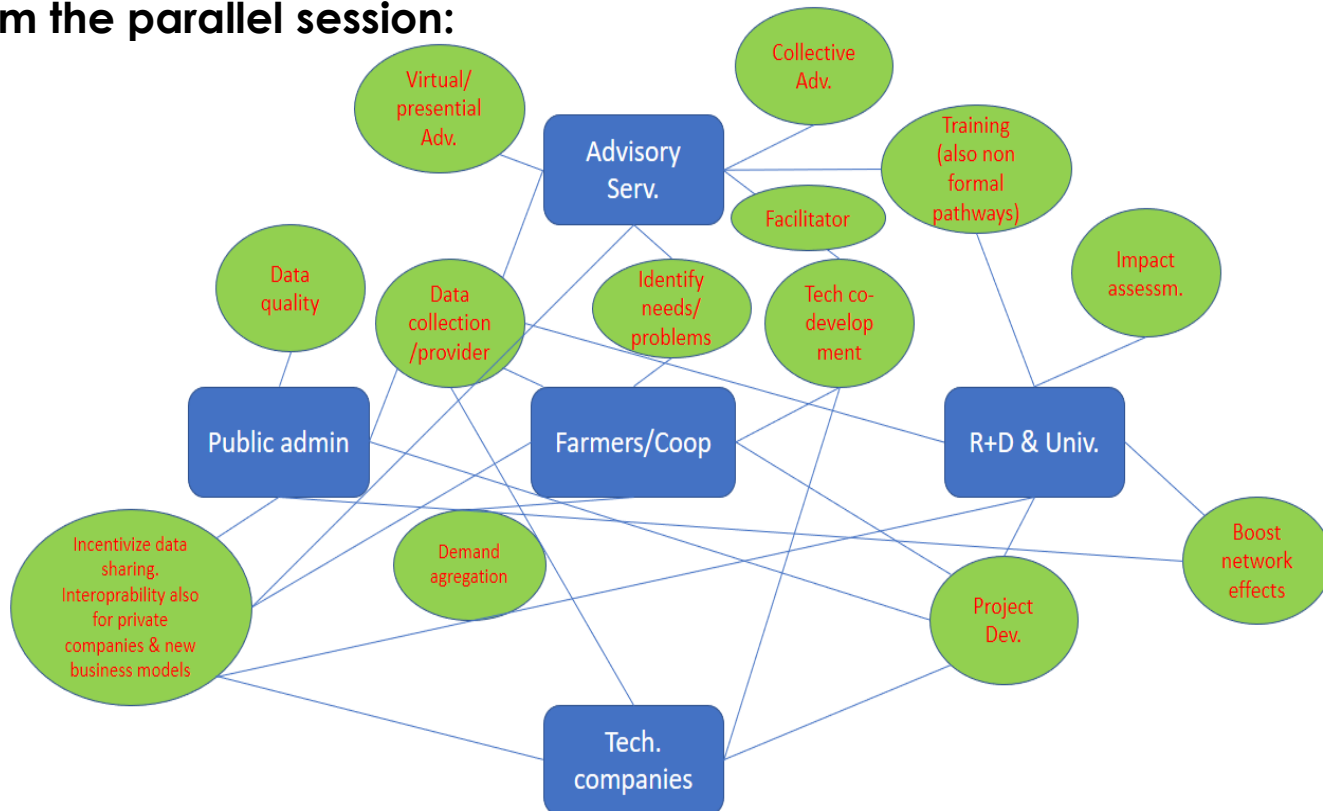
FOCUS GROUP ON DIGITISATION AND BIG DATA IN THE AGRI-FOOD AND FORESTRY SECTORS AND RURAL AREAS

Specific Objectives:

- ▶ Definition of strategic lines of digitization for the agro-food and forestry sectors and for the rural areas, with the identification of barriers, role of actors and their contribution to overcome the identified barriers
- ▶ Take stock of the state of the art of research and innovation
- ▶ Identify the needs of the practice and the possible orientations for future research and innovations
- ▶ Design a manual or toolbox for the end user (farmer, agro-food or forestry company, etc.) to facilitate digital transformation in the sector and in rural areas
- ▶ Come up with a set of funding possibilities and potential projects

Support digital transition in agriculture

Preliminary main results on the roles of the different actors in the digitisation process from the parallel session:





FEADER
Europa invierte en las zonas rurales



GOBIERNO DE ESPAÑA

MINISTERIO DE AGRICULTURA, ALIMENTACIÓN Y MEDIO AMBIENTE



WHAT DID WE DO AT THE FIRST MEETING?

23 NOV. 2017



Experts presentation



Capacities and experience. Group building

Good practices

Examples for replication and tool box development

Make a diagnostic of the situation

Identification of barriers to overcome

Situation per identified challenge

3 axis:
Technologies
Connectivity/Digital divide
Governance/Data Ecosystem

Support digital transition in agriculture:

- SECOND MEETING:
- Group discussion about mini-docs for its finalisation and a session in which we explored the role played or that can be played by the different actors in the digitization process of the agri-food, forestry and rural areas and how they can contribute to overcome the identified barriers.
- In order to do this, we wanted the group to be inspired by initiatives and existing ideas for the development of the subsequent debate in parallel sectorial sessions. With different presentations made from the perspective of:
 - Public Administration (Ministry of Agriculture and two regional governments (Andalucía and Galicia))
 - Advisory services (Public advisory services provider (INTIA-Navarra) and a private advisory services provider company (PigChamp-Pro)).
 - End-users (farmers, cooperatives and food industry) (Agrifood Cooperatives of Spain)
 - Research and University (INIA and Univ. of Córdoba)
 - Tech. company (Telefónica)

Support digital transition in agriculture:

NEXT STEP: 3rd meeting FG (March 20th.)

Before: a subgroup meeting on Interoperability/Data sharing (March 12th.)

- Elaboration of files on experiences of good practices and technologies for Tool Box (between 2nd and 3rd meeting)
- Completion Mini-documents (to be published next week)
- Prioritization of the main ideas identified in 2nd. meeting
- Structure and identification of the main contents of the final report conclusions
- Design of the tool box based on good practice cases to help disseminate the practical results of the GF to the interested parties

Challenge 1. Fight against rural depopulation, promotion of the incorporation of young people and reduction of the digital divide

OPPORTUNITIES

Technological progress (not only ICT's) is allowing the viability of low density systems. Allowing new dimensions for business, welfare access,...

Overall view taking into account the complex of interconnection rural/urban

Large deployment of IoT and remote sensors in the agri-food and also in the daily life

TECHNOLOGIES

Blockchain
Integrated use of near and remote sensors (Sentinel)

Decisión Support Sysyems oriented to different end- users in rural areas

Data could be a good partner to optimize social care, cultural environmental and economic services

BARRIERS

Digitization is not the only transformation needed to change the depopulation trend

Lack of capacities, qualified personnel on ICT's

Connectivity and interoperability

INCENTIVES

Broadband extension plan in low density areas to grant access for rural inhabitants, SME's NGO 's and municipalities

Measures on increase of quality of life and welfare and digitization process within RDP's

Support on new business models based on economic sustainability with an active participation of end-users

Challenge 2. Sustainability, productive improvement and logistics

OPPORTUNITIES

Smart farming as a key enabler of more sustainable and transparent value chain

Develop a common interoperability strategy. Strengthen public admin role on standards. Coops as data aggregators

Enhance public-private collaboration to achieve critical mass

TECHNOLOGIES

GIS and climate and micro-climate monitoring

Decisión Support Sysyems oriented to animal health, varieties, fertilization, irrigation,...

Pest and diseases monitoring and Big Data applications

BARRIERS

Lack of evidence on ROI

Capacities/Training in new AgTech abilities

Connectivity and interoperability

INCENTIVES

Develop OG's to provide evidence on return on investment and also on capacities of tech to increase farm profitability and sustainability

Promote a common repository of Data with the participation of the different interested actors

Support Agrifood DIH's and the development of new business models

Challenge 3. Surveillance, early detection of phyto and zoonotic diseases, development of early warning systems network, treatment of pests and diseases

OPPORTUNITIES

Better coordination of different existing data bases

Syndromic surveillance

Digitization of Field notebooks and second level integration to improve predictive processes

TECHNOLOGIES

IoT

Big Data

Blockchain

Technology is not the only solution for improving the current situation. There are legal, organizational, and training aspects that must be tackled simultaneously (cross-cutting approach) to have the expected impact

BARRIERS

Costs of digital transformation
Develop affordable tools

Lack of awareness on digital solutions.
Training of end-users

Connectivity and interoperability

INCENTIVES

Pre-Commercial Procurement (PCP)
Public Procurement Innovative Solutions (PPI)

Support Cross-regional OG's.
Support Network of Networks

Develop an AgTech observatory.
Enhance R+D (Public-private partnerships)

Challenge 4. Sustainable forest management and prevention, detection and extinction of fires

OPPORTUNITIES

Availability of Technologies (monitoring, data analysis,...)

Large potential for value creation

Possibility to benefit different actors and different sectors

TECHNOLOGIES

Remote and proximity sensors

LIDAR, Animal monitoring, Crowdsourcing

National Forest Inventory

BARRIERS

Economic viability

Lack of culture for valorization

Technical constraints: large surfaces to cover, low density, slow evolution

INCENTIVES

Dissemination of best practices and successful use cases

Support sectoral DIH's

Develop coordination and support instrument

Challenge 5. Equitable distribution of added value along the chain and promotion of rural development

OPPORTUNITIES

Digitization and cooperative coordination of the different levels of the value chain

Large potential for value creation along the value chain

Improve the economic, social and environmental efficiency.

TECHNOLOGIES

IoT.
Blockchain

Create a Data ecosystem for interoperability and value sharing

BARRIERS

Economic viability specially for family farming and SME's.
Lack of capacities/Training

Interoperability. Lack of regulation. Platforms issue

Dispersion of the sector (producers and industry)
Different digitization rhythm between the different layers

INCENTIVES

Promote Data warehouses in Agrofood cooperatives and farmers organizations to provide confidence for farmers

Develop a platform including all actors+Public Administration

Stronger involvement of young farmers (proposal for new CAP)

Challenge 6. Globalization and competitiveness in markets

OPPORTUNITIES

Integrated analysis of the value chain. Segmentation. Position in quality value

Costs reduction

New business models based on user observation

TECHNOLOGIES

Blockchain Gamification

Sistemas automatizados
Geo-mapping
Integration of sensors (proximity and remote)

Big Data: Planning, Logistics and ,Consumer's preferences

BARRIERS

Trust consumers/users

Training (also for emerging jobs)

Interoperability and connectivity

INCENTIVES

Encourage the knowledge of European consumers to segment products and promote continuous improvement of the sector

Support for investment and technological improvement aimed at providing more transparency for consumers and their enhancement

Raising awareness of the value of new tech.

Challenge 7. Consumer's demands in terms of information and participation in the market offer

OPPORTUNITIES

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| Become a reference in the EU | Active Tech companies ecosystem | New business models built upon Data |
|------------------------------|---------------------------------|-------------------------------------|

TECHNOLOGIES

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|---|--|--|
| Intelligent label Blockchain Gamification. augmented reality | Supercomputing Capture of users experience Cybersecurity | Information crawlers and ETL's systems. Artificial Intelligence (AI)-machine learning |
|---|--|--|

BARRIERS

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| Lack of data, Lack of quality of Data and Lack of trust on Data | Lack of culture of collaboration between the interested actors | Access to tech by end-users |
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INCENTIVES

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| Development of intermediate agent | Enhance the R+D+i Spanish Agenda with a consideration of these topics | Provide more training and capacity building instruments |
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Challenge 8. Management of the Common Agricultural Policy (CAP)

OPPORTUNITIES

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| CAP simplification. Improve transparency and efficiency of the control system. CAP paying agencies change of paradigm from a control role to a facilitator role | Implementation of new forms of interoperability and accessibility of the data used in the management for CAP support | Greater and more effective control, in a way that is closer to reality, which would allow to improve iteratively the KPIs |
|---|--|---|

TECHNOLOGIES

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| Big Data | Copernicus Data and Information Access Services (DIAS) | Remote and proximity monitoring |
|----------|--|---------------------------------|

BARRIERS

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| Current CAP little or nothing correlated with digitization or with ICT. Penalizing policy, not reventive, not oriented to objectives and without monitoring indicators (KPIs). | Lack of farmers training in new technologies. Lack of technological integration in the agro-food chain. | Technical constraints to the use of Sentinel |
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INCENTIVES

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|---|--|--|
| Support for farmers that adopt integrated solutions with the control and monitoring systems of the Public Administrations. Support their training | Provide financial support linked to production models that make more efficient use of natural resources. | Support R+D+i Centes and AgTech for the integration into Spanish and Europe digital platforms and the development of projects and applications |
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THANKS!

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